

**December 7, 2000**

**FACT SHEET**

**FINAL AMENDMENTS TO THE AIR TOXICS REGULATION  
FOR PULP AND PAPER PRODUCTION**

**TODAY'S ACTION**

- !** The Environmental Protection Agency (EPA) is issuing a final rule to amend the regulation that limits emissions of air toxics from pulp and paper mills. Air toxics, also called hazardous air pollutants, are those pollutants known or suspected to cause cancer or other serious health or environmental effects.
- !** Today's amendments, slated to take effect 60 days after publication in the Federal Register, provide the pulp and paper industry with alternatives for meeting some requirements under the original rule and may reduce the cost of compliance for some mills.
- !** The amendments do not change emission standards and will not affect the health and environmental benefits of the original rule.
- !** The amendments add new alternative performance tests and standards for boilers and biological treatment systems used to control the emission of air toxics during the pulping process.
- !** Boilers may be used to burn gases produced in the pulping process. The amendments add an additional type of large boiler to the list of control devices that do not need to be performance-tested or continuously monitored for combustion temperature.
- !** Biological treatment systems remove air toxics contained in wastewater before those toxics can

be released to the air. The amendments make the following changes to requirements for biological treatment systems:

- 1) Add new monitoring and test procedures for some types of biological treatment systems (called “non-thoroughly mixed systems”);
- 2) Allow industry to reduce emissions by a certain weight, as an alternative to the current percent reduction standard; and
- 3) Reduce the number of air toxics to be tested to four specific compounds: acetaldehyde, methanol, methyl ethyl ketone, and propionaldehyde. These toxics can cause a variety of health problems. Methyl ethyl ketone, for example, can irritate the eyes, nose and throat and can depress the central nervous system.

## **BACKGROUND**

- ! Under the Clean Air Act Amendments of 1990, EPA is required to regulate sources of 188 listed toxic air pollutants.
- ! In 1998, EPA issued rules and guidelines to reduce and prevent air and water discharges from pulp and paper mills. The air rules issued as part of that package are expected to reduce air toxics emissions from pulp and paper production by approximately 60 percent -- or 155,000 tons annually. The water rules issued in that package are expected to result in a 91 percent reduction in dioxin/furan discharges to water and an 82 percent reduction in chloroform discharges.
- ! Those rules required pulp and paper mills to capture and control emissions of air toxics that occur at vents throughout the pulping process.
- ! Pulping processes generally are classified as chemical, mechanical or semi-chemical.
  - < In chemical pulping, wood is cooked in a “digester” at elevated pressure with a solution of chemicals that dissolves the lignin (the “glue” that holds wood together) and leaves behind the cellulose (the fibrous material used to make pulp and paper.) A variety of air toxics are emitted during the cooking process.
  - < In mechanical pulping, a grinder is used to physically separate fibers. Semi-chemical pulping combines the chemical and mechanical methods. Wood chips are partially cooked with chemicals, and the remainder of the pulping is accomplished mechanically.
  - < After the wood is pulped, the pulp is washed to remove the dissolved lignin and chemicals.

In the washing process, the pulp is passed through a series of large washers and screens. This process occurs at high temperatures which generates exhaust gases containing air toxics.

! EPA proposed today's amendments January 25, 2000.

#### **FOR MORE INFORMATION**

! To download the amendment from EPA's web site on the World Wide Web, go to the following address: <http://www.epa.gov/ttn/oarpg/ramain.html> .

! For additional information, Stephen Shedd of the EPA's Office of Air Quality Planning and Standards at (919) 541-5397 or by e-mail at [shedd.steve@epa.gov](mailto:shedd.steve@epa.gov). Or visit the pulp and paper air toxics website at the following address:  
<http://www.epa.gov/ttn/uatw/pulp/pulppg.html>.

! EPA's Office of Air and Radiation's home page on the Internet contains a wide range of information on the air toxics program, as well as many other air pollution programs and issues. The Office of Air and Radiation's home page address is: [www.epa.gov/oar/](http://www.epa.gov/oar/).